# FIRM VALUE AND PERFORMANCES IN MERGER POLICY: EVIDENCE FROM INDONESIA

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## ABSTRACT

*This study aims to investigate merger phenomenon undertaken by PT Ciputra Development (CTRA) with its two subsidiaries; PT Ciputra Surya (CTRS) and PT Ciputra Property (CTRP) in 2017 associated with its performances. This paper employs a quantitative approach to examining company performance and value before and after the merger. Aspects observed to compare company performance are a stock performance in the market, financial performance, and company value. Actual return analysis is used to examine stock performance whereas independent samples T-test is employed to examine the financial performances before and after the merger. Firm value is examined using Free Cash Flow to Equity (FCFE) analysis. This study suggests higher stock performance and lowers financial performance after the merger was undertaken. Moreover, this study finds that after the merger, the firm value of CTRA calculated by different methods suggests a higher number than that before the merger which implies the right decision in undertaking merger to increase firm value.*

**Keywords:** Firm Value, Financial Performances, Merger.

## INTRODUCTION

In the world of business, companies would make various efforts to improve and maximize the welfare of their shareholders. Various efforts were made to improve the company's performance. One scenario is through a business combination. Beams et al. (2018) stated that a business combination is the union of two business entities. Beams et al. (2018) added, in addition to increasing profits, some of the company's motives in conducting business combinations include cost efficiency, reducing risk, reducing tax obligations, and others.

One form of business combinations is a merger. According to Beams et al. (2018), a merger is a mechanism of the business combination when a company takes over the entire operation of another business entity and the target company is dissolved. The merger is intended to increase firm value and provide benefits to both shareholders, the acquiring and the target company. These benefits come from the operations of companies on a larger scale, increased profits with lower transaction costs, increased efficiency and market forces (Brigham & Houston, 2015). Maximum market value is obtained when the prices of shares held increase. The increase in stock prices would provide welfare to shareholders as well as dividends received. According to Saboo & Gopi (2009), mergers are usually carried out to increase the competitiveness of the companies by increasing market share, increasing the business portfolio to reduce risk, market penetration and the company size.

Saboo & Gopi (2009) explained that in the modern era, the phenomenon of mergers began to be carried out since the beginning of the 20th century. In the United States, there were at least six waves of mergers and acquisitions with different characteristics and results (Cools et al., 2007). At the beginning of the 20th century, the trend of mergers and acquisitions was driven to increase market share, and over time, the reason for companies to merge was to increase efficiency by making a chain of production from raw materials to the distribution process.

In their study, Ghosh & Dutta (2016) compared the literature review of mergers and acquisitions in companies in India using three measurements; financial performance, stock performance, and qualitative performance. The publication also mentions that the events of mergers and acquisitions in India had positive, negative, and combination effects on companies in India. Feroz et al. (2005) proved that mergers have an impact on increasing managerial efficiency of companies after mergers in 82 percent of samples of the United States companies. Furthermore, Choi & Harmatuck (2006) also revealed that the company's operating performance showed an increase in the long term even though the results were not significant.

Numerous previous studies showed different results. Kemal (2011) proved that the financial performance of Royal Bank of Scotland in Pakistan for 2006-2009 as well as profitability, liquidity, assets, leverage levels, cash flow positions were better at the time before the merger. Also, Majumdar et al. (2007) investigated the effects of mergers on financial performance and efficiency at US Telecom and showed that cash flows had decreased after the merger. Also, the results of research by Heykal & Wijayanti (2015) on banks listed on the Indonesia Stock Exchange (IDX), showed that there were no significant differences in financial ratios between before and after mergers, as well as the value of stock returns that did not experience significant differences after the merger.

This study employs a case of a merger conducted by PT Ciputra Development (CTRA) with its subsidiary companies, PT Ciputra Property (CTRP) and PT Ciputra Surya (CTRS). PT Ciputra Development is one of the leading companies in the property sector in Indonesia. According to Santoso (2009), the property and real estate industry is one sector that signalizes whether the country is in a fall or rise economy. It means that when more companies engaged in the property and real estate sector. It indicates a growing economy. In developing countries, the property and real estate business industry can experience growth and decline.

This study is aimed to determine differences in company performances as indicated by the performance of shares and financial performance as well as the firm value before and after the merger conducted by PT Ciputra Development on PT Ciputra Property and PT Ciputra Surya. Based on the literature revies, there have been no studies in Indonesia that examine differences in stock performance, financial performance and firm value with the object of PT. Ciputra Development due to its recent merger practice.

## LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Beams et al. (2018) contended that mergers occurred when a company took over operations of the target company, and the target company became dissolved. Merger is an agreement between two parties or more to unite their businesses when at the end, there would only be one company that still exists as a legal entity, while the other is dissolved (Moin, 2013).

According to Indonesia Law Number 40 of 2007 Article 1 number 9, a Merger is a legal act carried out by one company or more to merge with another existing company which results in the assets and liabilities of the company which merges itself due to the law to the company that received the merger. Subsequently, the status of the corporate legal entity that merged itself ended because of the law. Financial statements according to Indonesian Accounting Standard Number 1 of 2015 are part of a complete financial reporting process that usually includes balance sheets, income statements, changes in financial position reports that can be presented in various ways, such as cash flow reports, notes and other reports as well as explanatory material which is integral part of financial statements (IAI, 2005).

The term performance is often associated with the company's financial condition. Sukhemi (2007) argued that performance could be interpreted as the achievement of the company in a certain period that reflects the level of health of the company. Performance is pivotal for the company because it reflects the company's ability to manage and allocate its resources. Performance measurement is one of the most important factors for the company because these measurements can influence decision-making behavior in the company.

The incorporation of parent and its subsidiaries as implemented by CTRA with CTRP and CTRS can be associated with stewardship theory which aims to align organizational goals as the owner's goals so that managers would behave as principals wanted (Donalson & Davis, 1991). Raharjo (2007) stated that the stewardship theory assumed that organizational success with owner satisfaction had a strong relationship because stewards, in this case, the manager, would protect and maximize the organization's wealth with the company's performance, so that the utility function would be maximized. With the merger of CTRP and CTRS companies to be incorporated with CTRA, the company would be led by one management.

Ghosh & Dutta's (2016) research suggested that merger events have mixed results with companies in India is considered from three aspects, namely; stock performance, financial performance, and qualitative performance. In several companies in India, company performance was seen from aspects of stock performance, financial performance, and qualitative factors have shown to increase, some are to decrease, and the combination between them. Sudana (2011) stated that the reason for companies to merge was to achieve economical operations, company growth, and diversification to reduce the risk.

To find the growth of PT. Ciputra Development Tbk (CTRA) after the merger, it is necessary to analyze the company's financial data before and after the merger. In general, the authors argue that the merger carried out will improve stock performance, financial performance, and company value (Stunda, 2014).

Yuce & Ng (2005) stated that the consequences of mergers and acquisitions in companies in Canada were a significant positive rate of return after mergers. Also, research from Hassan et al. (2007) and Mehrotra et al. (2008) showed that mergers and acquisitions had a positive influence on the creation of welfare from shareholders in pharmaceutical companies in the United States. The results of the study generally state that mergers carried out by companies can improve the performance of company shares. Donaldson & Davis (1991) stated that company performance as indicated by ROE returns increases if the company combines the chair position and Chief Executive Officer (stewardship theory) rather than separating the agency function. This study was also encouraged by Lau et al. (2008) which compared company performances before and after mergers where the results showed an increase in operating performance with several parameters such as profitability, cash flow, efficiency, and level of leverage after a merger. Also, Olalekan & Adebayo (2012) also found that mergers and acquisitions conducted by banks in Nigeria had increased overall performance and contributed greatly to growth. Based on previous studies, it could be concluded that the practice of mergers would improve the company's financial performance. Therefore, the hypotheses in this research are as follows:

*H1: The company's stock performance is higher after the merger than that before the merger.*
*H2: The company's financial performance increased after the merger.*
*H3: The firm value is greater after the merger than that before the merger.*

## RESEARCH METHODOLOGY

This study employs a quantitative approach. This study also uses a comparative approach using t-test or different tests. In this study, a comparative analysis of company performance (financial performance and stock performance) and company value at CTRA as an acquiring company between before and after the company merger. To indicate whether there are significant differences in company performance between before and after the merger, this study uses an independent samples t-test.

The data to be analyzed in this study are secondary data obtained from the publication of financial statements by the Indonesia Stock Exchange (IDX) and the company's interim financial statements before and after the merger. To analyze the company's financial performance, data are used from the company's financial statement interim reports. The data employed to assess stock performance is data one year after the merger, while the data used to assess financial performance is quarterly data from 2013 to the first quarter of 2018.

This study measures stock performance illustrated by shareholder returns which is measured using a comparison of the increase in stock prices in the one year after the merger, as done by Heykal & Wijayanti (2015). Stock returns are measured by identifying actual stock returns measured from stock prices on December 31, 2016, with the stock price on December 31, 2017, using the following formula.

$$\mathrm{R2017} = \frac{\mathrm{P2017} - \mathrm{P2016}}{\mathrm{P2016}}$$

R 2017 = The actual rate of return occurs during 2017.
P 2017 = CTRA stock price on December 31, 2017.
P 2016 = CTRA stock price on December 31, 2016.

For the proxy of financial performance, Gitman (2009) stated that to analyze company profitability and return on equity, Du Pont's analysis was used. For this reason, Return on Assets (ROA) and Return on Equity (ROE) were calculated from the results of the calculation of income statement and balance sheet. Also, according to Gitman (2009), Du Pont's approach could be solved in two stages. The first step is multiplying Net Profit Margin (NPM) with Total Asset Turnover (TATO) which results in Return on Total Assets (ROA).

The proxy used to calculate company value is Free Cash Flow to Equity (FCFE), which aligns research conducted by Anggraeni (2017). FCFE is the remainder of the cash flow that is left behind for shareholders after deducting all of its financial liabilities including debt, re-investment funds (capital expenditure), and needed working capital (Damodaran, 2002). Besides FCFE, as a supporting comparison, this research calculates EV/EBITDA and Price to Earnings Ratio of companies before and after mergers.

**Table 1**
**FINANCIAL PERFORMANCE INDICATORS**

| No. | Indicator | Formula | Notes |
|---|---|---|---|
| 1 | Net Profit Margin (NPM) | $\mathrm{NPM} = \frac{\text{Earning After Tax}}{\text{Sales}} \times 100\%$ | This ratio views how companies can increase net sales income. The higher, the better. |
| 2 | Total Assets Turnover | $\mathrm{TATO} = \frac{\text{Sales}}{\text{Total Assets}}$ | This ratio sees how an increase in assets after a merger can drive sales to increase. |

**Table 1**
**FINANCIAL PERFORMANCE INDICATORS**

| | | | |
|---|---|---|---|
| 3 | Financial Leverage Multiplier | FLM= $\frac{\text{Total Assets}}{\text{Total Equity}}$ | This ratio looks at the comparison between assets and capital. The lower the FLM ratio, the better. It means that the company uses more internal funding sources, namely by using capital to fund its assets. |
| 4 | Return on Total Assets | ROA=(Net Profit Margin×Total Asset Turnover)×100% | This ratio shows the relationship between how much assets owned by the company can increase the company's profit. |
| 5 | Return on Equity | ROE=(Return on Total Assets×Financial Leverage Multiplier)×100% | This ratio shows the relationship between how much equity owned by the company can increase the company's profit. |

To calculate the firm value Table 1, the Free Cash Flow to Equity (FCFE) method as also used by Anggraeni (2017) was employed. As for the steps in assessing the company is as follows; (i) Calculating FCFE, FCFE is calculated by using FCFE formula=Net Income-Net Capital Expenditure-The change in Working Capital+New Debt-Debt Repayment. (ii) Calculating Cost of Equity, in calculating the cost of equity, the method employed is *Capital Asset Pricing Model* (CAPM) which is CoE=rf+(rm-rf)*ß, where: Rf=risk-free level which refers to the assumptions of the State Treasury Letters Budget; G= indicators that describe the risk of company shares against the company's stock exchange. (iii) Calculating the Intrinsic Value of the Company.

## RESULTS AND DISCUSSION

### Descriptive Statistics

**Table 2**
**STOCK PRICE DESCRIPTIVE STATISTICS**

| | **Stock Price 31st Dec 2016-31st Dec 2017** | **Stock Price Growth** |
|---|---|---|
| *Mean* | Rp.1,242.914627 | 0.006031268 |
| *Standard Error* | 10.45932147 | 0.025328379 |
| *Median* | Rp.1,242.38659 | 0.016959911 |
| *Standard Deviation* | 37.71161986 | 0.087740079 |
| *Minimum* | Rp.1,185.642158 | -0.125 |
| *Maximum* | Rp.1,301.846791 | 0.147679325 |
| *Count* | 13 | 12 |

In Table 2, the stock price data presented is monthly data starting from the closing price on December 31st 2016, to December 31st 2017. From these data, the average monthly growth of CTRA's stock price is 0.006 which indicates a very small increase.

**Table 3**
**FINANCIAL PERFORMANCE DESCRIPTIVE STATISTICS**

| **No** | **Financial Indicators** | **Mean** | | **Increase/Decrease** |
|---|---|---|---|---|
| | | **Before the merger** | **After the merger** | |
| 1 | *Net Profit Margin (NPM)* | 23.96% | 14.69% | Decrease |
| 2 | *Total Assets Turnover (TATO)* | 6.96% | 5.00% | Decrease |

**Table 3**
**FINANCIAL PERFORMANCE DESCRIPTIVE STATISTICS**

| | | | | |
|---|---|---|---|---|
| 3 | *Financial Leverage Multiplier (FLM)* | 2.019 | 2.072 | Increase |
| 4 | *Return on Assets (ROA)* | 1.69% | 0.74% | Decrease |
| 5 | *Return on Equity (ROE)* | 3.41% | 1.54% | Decrease |

Table 3 shows descriptive statistics from the financial performance data of PT. Ciputra Development Tbk (CTRA) from the first quarter of 2013 to the first quarter of 2018. The results of the descriptive statistics are divided into two parts which are before and after the merger. The merger was carried out in early 2017, so the amount of data taken before the merger was carried out was 16 quarters of data, while after the merger was five quarters of data.

Based on the results of these tests, before the NPM merger, the average company is 23.96%, greater than the average NPM after the merger of 14.69%. The data also shows the TATO average before the merger is 6.96%, greater than the TATO average after the merger of 5.00%. For FLM before the merger is 2.019 smaller than the FLM average after the merger of 2.072. For ROA before merger is 1.69%, greater than the average ROA after the merger of 0.74%. For ROE before the merger is 3.41%, greater than the average ROE after the merger of 1.54%. It can be concluded that the average NPM, TATO, ROA, and ROE of PT Ciputra Development Tbk (CTRA) after merger decrease. Meanwhile, the FLM average after the merger increases.

## Hypothesis Testing

The actual rate of return is equal to 0.03 percent which is obtained by comparing the stock price as of December 31st 2016, and December 31st 2017, divided by the stock price on December 31st 2016. From the results of these calculations and the positive trends of CTRA's monthly share shows a positive stock price return for one year since the merger was carried out.

**Table 4**
**T-TEST RESULT**

| No | Variable | Mean | | Diff. | Alpha (α) | Sig (2-tailed) | Conclusion |
|---|---|---|---|---|---|---|---|
| | | Before the merger | After the merger | | | | |
| 1 | Net Profit Margin (NPM) before and after merger | 23.96% | 14.69% | 0.92 | 0.05 | 0.004 | Decreases, Significant Difference |
| 2 | Total Assets Turnover (TATO) before and after merger | 6.96% | 5.00% | 0.19 | 0.05 | 0.006 | Decreases, Significant Difference |
| 3 | Financial Leverage Multiplier (FLM) before and after merger | 2.019 | 2.072 | -0.053 | 0.05 | 0.171 | Increases, Insignificant Difference |
| 4 | Return on Assets (ROA) before and after merger | 1.69% | 0.74% | 0.009 | 0.05 | 0.002 | Decreases, Significant Difference |
| 5 | Return on Equity (ROE) ) before and after merger | 3.41% | 1.54% | 0.18 | 0.05 | 0.003 | Decreases, Significant Difference |

Based on the results of examining the average difference with t-test, it can be seen that only the FLM variable increases after the merger. However, from the t-test result, the value of significant (2-tailed) FLM is greater than the alpha value=0.05. Thus, the increase from the company's FLM is not significant after the merger. This insignificant increase can be caused by the limited timeframe of FLM after the merger. So, it would be possible that the increase is significant as time goes on.

For variables such as NPM, TATO, ROA, and ROE, they decrease after the merger. It can be seen from the Table 4, that the value of significant (2-tailed) NPM, TATO, ROA, and ROE are smaller than alpha value=0.05, it can be concluded that the decrease in NPM, TATO, ROA, and ROE is a significant decrease after the merger.

The method used in assessing the company is Free Cash Flow to Equity (FCFE). The company value analysis method compares firm value in 2016, which is just before the merger and at the end of 2017, a year after the merger.

Free Cash Flows to Equity is a measurement that describes the net cash available compared to shareholders' equity after expenses, debts paid, and investments. Referring to Anggraeni's study (2017), this study uses a constant growth rate where the growth rate is found from the Equity Investments Rate multiplied by return on equity. Based on the calculation of the equity investment rate and ROE, growth is used which is the average value of growth obtained from the past four years. From the calculation, the FCFE company proved to experience a significant increase from 1.48 trillion rupiahs to 2 trillion rupiahs found that firm value after the merger experienced a significant increase from 10.562 trillion rupiahs to 36.987 trillion rupiahs.

**Table 5**
**FCFE CALCULATION**
**(in million rupiah)**

| Calculation | Source | 2017 | 2016 |
|---|---|---|---|
| a. Net Income | Income Statement | 1,018,529 | 1,170,706 |
| b. Depreciation and Amortization | Notes to Financial Statement | 1,053,639 | 880,305 |
| c. Change in Working Capital | Δ Current Asset without Cash–Δ Current Liability | -1,254,854 | -1,925,582 |
| d. Capital Expenditure | Gross $PPE_T$-Gross $PPE_{T-1}$ | - 276,940 | -210,498 |
| e. Net Borrowing | Total debt receipt-Total debt payment | 1,481,075 | 1,565,826 |
| **FCFE** | | 2,021,449 | 1,480,757 |

**Table 6**
**COST OF EQUITY CALCULATION**

| Item | Source | 2.017 |
|---|---|---|
| Gross PPE | Financial Statements | 4,191,092 |
| Depreciation | Financial Statements | 1,053,639 |
| **Net Capex** | ΔGross PPE-Depreciation | - 776,699 |
| Current Asset | Financial Statements | 15,167,178 |
| Current Liability | Financial Statements | 7,782,985 |
| **Working Capital** | Current Asset-Current Liability | 7,384,193 |
| **Change in Working Capital** | $WC_T$-$WC_{T-1}$ | 984,547 |
| Total Liability | Financial Statements | 16,255,398 |
| Total Asset | Financial Statements | 31,706,163 |
| **Debt Ratio** | $\frac{\text{Total Liability}}{\text{Total Asset}}$ | 0.51 |
| **(1-Debt Ratio)** | F | 0.49 |
| **Net Income** | Financial Statements | 1,018,529,00 |

| | | |
|---|---|---|
| **Equity Reinvestment Rate** | $\frac{(\text{Net Capex} + \Delta\text{WC}) * \text{f}}{\text{Net Income}}$ | **0.10** |

**Table 7**
**GROWTH FCFE CALCULATION**

| Item | 2016 | 2017 |
|---|---|---|
| Beta | 1.284 | 0.876 |
| Risk Free-Rf (Asumsi SPN APBN) | 5.5% | 5.3% |
| Monthly Market Risk-Rm | 1.2% | 1.9% |
| Annual Market Risk | 14.7% | 24.8% |
| **CoC** | 17.33% | 7.01% |

**Table 8**
**ROE CALCULATION**
**(in a million rupiahs)**

| | 2012 | 2013 | 2015 | 2015 | 2016 | 2017 |
|---|---|---|---|---|---|---|
| *Net Income* | 849,383 | 1,413,388 | 1,794,143 | 1,740,300 | 1,170,706 | 1,018,529 |
| Total Equity | 8,480,745 | 9,765,513 | 11,421,371 | 13,050,221 | 14,297,927 | 15,450,765 |
| ROE | **0.1002** | **0.1447** | **0.1571** | **0.1334** | **0.0819** | **0.0659** |

**Table 9**
**VALUE FCFE CALCULATION**
**(in million rupiah)**

| | Source | 2016 | 2017 |
|---|---|---|---|
| Growth | Financial Statements | 3.1669% | 3.1766% |
| (1+g) | (1+a) | 103.1669% | 103.1766% |
| FCFE | Table V | 2,021,449 | 1,480,757 |
| FCFE 1 | c*b | 2,085,466 | 1,527,795 |
| Cost of Equity | Tabel VI | 22.91% | 7.31% |
| (K-g) | e-a | 19.7445% | 4.1306% |
| **Value FCFE** | **d/f** | **10,562,288** | **36,987,056** |

From the results of calculations shown in Tables 5-9, it can be seen that the company's value from CTRA increases after the merger. Using FCFE calculations, it is found that firm value before the merger is 10,562 billion rupiahs, and after the merger, firm value increases significantly by 250 percent to 36,987 billion rupiahs.

## Analysis

The analysis of stock performance suggests that CTRA's share price increases slightly after the company's merger. However, stock prices on the financial market are strongly influenced by bias in the market conditions in Indonesia so that a very small increase in stock prices can be made possible due to the improving market conditions at that time. The purpose of the merger related to shares is to strengthen the value of CTRA's shares as property companies in Indonesia. However, an increase in the stock price return rate of 0.03 is not able to answer the purpose of the merger optimally because the increase can still be caused by other factors in the financial market.

In general, the result of examining this hypothesis is in line with Hassan et al. (2007) and Mehrotra et al. (2008) which stated that mergers and acquisitions could improve the welfare of shareholders in America in the pharmaceutical industry. However, this is not in line with what was found by Wang (2012) which stated that mergers and acquisitions were proven to provide more profits to the acquired company but not to the acquiring company. Previous studies analyzed companies from both developing and developed countries which showed various results.

As for the financial performance, the analysis shows that the FLM ratio increases after the merger even though the increase is not significant. The increase can be interpreted as the impact of the increase in the total assets of the company after the merger. Meanwhile, the ratio of NPM, ROA, and ROE decreased significantly. The decrease in NPM, ROA, and ROE could be interpreted as a decrease in the performance of company companies in generating sales and company profits. In this case, the merger carried out by CTRA has not been able to stimulate an increase in short-term sales. Also, the level of sales of property companies can be influenced by other external factors such as the level of demand for goods in the market, inflation, the public financial condition, etc. But it does not rule out the possibility; in the following years, the company begins to expand its business so that it can stimulate sales and profits increases. Furthermore, the results of the analysis show a significant reduction in TATO. The decrease in TATO is caused by the management of the company's total assets that are still lacking to be able to generate sales.

A decrease in the four indicators of financial performance and an increase in one of the financial performance indicators suggest that hypothesis 2 in this study cannot be supported. The results of the study prove that in general the merger activities carried out by PT. Ciputra Development Tbk (CTRA) has not been able to improve the company's financial and accounting performance; this is indicated by a significant decrease in the company's NPM, ROA, and ROE. Even so, it does not mean that the merger carried out by PT. Ciputra Development Tbk (CTRA) merely brings a negative impact on the company's performance. The decrease in the ratio may be caused by the short period of the company's performance data after the merger that would become a limitation of this study. The results of this hypothesis testing are in line with the results of research by Mardianto et al. (2018) in various countries that mergers and acquisitions could not be one way for companies to obtain profitability growth in the short term

By using FCFE calculations, the CTRA company value shows to increase. To support the analysis using FCFE, company value is also calculated using the EV/EBITDA method and the P/E ratio method. The EV/EBITDA is a method to compare the company's value to EBITDA (earnings before tax, depreciation, and amortization) obtained for one year. The resulting ratio indicates a multiplier multiplied by the EBITDA that must be paid to acquire the business. From the results shown in Table 10, it is found that the firm value and EV/EBITDA of the company experienced an increase from before and after the merger. Bianconi & Tan (2017) mentioned that multiple enterprises (EV/EBITDA) are the ratio used to assess a company. This ratio is also useful for comparisons of companies between countries since the ratio ignores the impact of the distortion of taxation policies in each country. Bianconi and Tan also added that multiple firm values could vary and it depends on the nature and type of industry

**Table 10**
**EV/EBITDA CALCULATION**
**(in million rupiah)**

| **Market Cap (Dec 31, 2016)** | **Debt 2016** | **Cash 2016** | **EV** | **EBITDA** | **EV/EBITDA** |
|---|---|---|---|---|---|
| 20,361,384.41 | 16,255,398.00 | 3,467,585.00 | 3,149,197.41 | 1,194,493.00 | 27.75 |
| Market Cap (Dec 31, 2017) | Debt 2017 | Cash 2017 | EV | EBITDA | EV/EBITDA |
| 25,242,012.62 | 14,774,323.00 | 3,228,549.00 | 36,787,786.62 | 1,057,990.00 | 34.77 |

Price to Earnings Ratio (P/E ratio) is a method to value companies by calculating stock prices divided by earnings per share. Firm value that can also be described with CTRA's market capitalization increases after a one-year merger. The price to income ratio also shows an increase. In general, the P/E ratio shows how the market responds to a stock compared to the company's performance regarding income. If P/E is overvalued, the stock price can be indicated to be too high compared to the value it should be. The increasing P/E ratio and the market capitalization of CTRA illustrate the good response from the market after the merger or the impact of the increase in shares due to the merger.

**Table 11**
**P/E RATIO CALCULATION**

| **Price Dec 31, 2016 (Rp)** | **EPS TTM (2016)** | **P/E** | **Number of shares** | ***Market Capitaization/ Entreprise Value*** |
|---|---|---|---|---|
| 1320 | 56 | 23.57143 | 15,425,291,220 | 20,361,384,410,400 |
| Price Dec 31, 2017 (Rp) | EPS TTM (2016) | P/E | Number of shares | *Market Capitalization/ Entreprise Value* |
| 1360 | 48 | 28.33333 | 18,560,303,397 | 25,242,012,619,920 |

By using the EV/EBITDA method, firm value increased by 10.97 percent from 33,149,197.41 million rupiahs to 36,787,786.62 million rupiahs. Also, the EV/EBITDA ratio also increased from 27.75 to 34.77. And by using the P/E ratio calculation, the company experienced an increase from before the merger of 20,361,384,410,400 rupiahs to 25,242,012,619,920 rupiahs (Table 11).

The increase in firm value from before and after the merger could occur because the position of the company that experienced a merger is in good condition, as indicated by the good number of financial ratios. The company merger aims to benefit from a simpler company structure.

Thus, the results of the analysis are in line with what was expressed by Bianconi & Tan (2017) who stated that firm value experienced a positive increase shortly after the mergers and acquisitions. Also, as stated by Meyer & Tran (2006) in his research that mergers and acquisitions of local companies are one way to penetrate the market by multinational companies. Bianconi & Tan (2017) also mentioned that the increase in firm value in the short term could be due to the movement of EV values which are relatively faster compared to EBITDA movements.

## CONCLUSIONS

In general, the merger carried out by CTRA for one year has not been optimal in supporting the achievement of the initial goal of the merger, namely strengthening share prices and increasing profits from a simpler organizational structure. This is supported by an analysis of three variables, namely stock performance, financial performance, and stock value.

The performance of CTRA's shares as measured by shareholder returns shows an increase from before the merger. However, this could not be ascertained as results of the merger as the increase could be due to bias in the Indonesian financial market.

From the analysis of financial performance, the results of the study prove that the merger activities carried out by PT. Ciputra Development Tbk (CTRA) has not been able to improve the company's financial and accounting performance in the short term (Baridwan, 2004). In this case, financial performance decreases after the merger. This is contrary to the initial purpose of the merger which is to create a growth company. A significant decrease in NPM, ROA, ROE, and TATO indicates that merger efforts may not necessarily improve the company's financial performance.

To measure firm value, this research employs FCFE, which is supported by EV/EBITDA method analysis, and P/E ratio. Of the three test methods, the value of the CTRA company indicates the most significant increase in firm value by using FCFE.

The limitation of this study is the limited range of research periods which only ranged from 2013 to the first quarter of 2018. The short period is due to the merger of PT. Ciputra Development Tbk (CTRA) carried out at the beginning of 2017, so this research is still unable to find out the company's performance after 2018. Henceforth, this research suggests expanding the research period so that the results of research can better describe stock performance, company financial performance, and more accurate firm value with more comprehensive data after the merger.

This research is expected to contribute to the government, creditors, and prospective investors as an initial indication of the phenomenon of mergers occurring in Indonesia. This research is also expected to provide added value to the world of literacy related to mergers and acquisitions, especially in companies that occur in Indonesia as well as knowledge to prospective investors and the public about the effect of mergers and acquisitions on the performance of the company in terms of stock performance, financial performance, and value company.

Future research is expected to use a larger data scale with a longer period. Also, further research is also suggested to see the phenomenon of mergers on a larger scale by using data from certain industry sectors or looking at it from another perspective.

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